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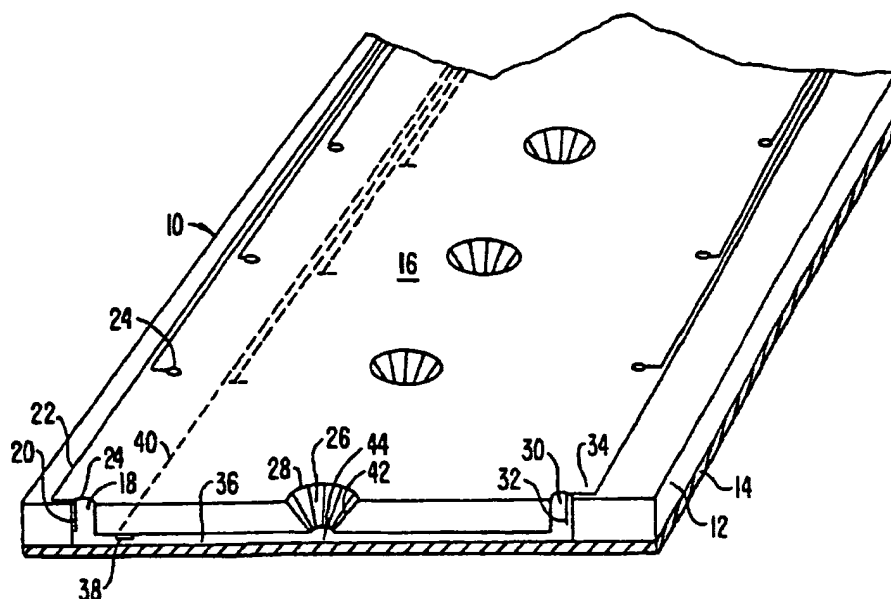
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GA, GN, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: SAMPLE EVAPORATIVE CONTROL



(57) Abstract: Devices and methods are provided using microfluidic devices for manipulating small volumes and determining a variety of chemical and physical events. The devices rely upon an opening to the atmosphere of a small volume in a zone, where a sample is placed in the zone where evaporation can occur. The zone is maintained in contact with a liquid medium that serves to replenish the liquid in the zone and maintain the composition of the mixture in the zone substantially constant. The diffusion of components in the zone is restricted during the course of the determination by the liquid flux into the zone.

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INTERNATIONAL SEARCH REPORT

Internal Application No

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 B01L B01J G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 33052 A (LITBORN ERIK ; ROERADE JOHAN (SE)) 30 July 1998 (1998-07-30) cited in the application page 1, line 1 -page 3, line 6 page 3, line 26 -page 4, line 5; figures 1,2B	1,2,11, 18
T	LITBORN ET AL.: "parallel reactions in open-chip based nanovials with compensation for solvent evaporation" ELECTROPHORESIS, 2000, pages 91-99, XP000934274 de the whole document	1,2,11, 18
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

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- *Z* document member of the same patent family

Date of the actual completion of the international search

22 November 2000

Date of mailing of the international search report

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	US 5 334 837 A (IKEDA MASAHIKO ET AL) 2 August 1994 (1994-08-02) abstract ---	1
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A	US 5 558 837 A (TSUKISHIMA CHIHIRO) 24 September 1996 (1996-09-24) column 15, line 19 -column 17, line 26; figures 15-19 ---	28
X	US 5 785 926 A (KRAFT RAY ET AL) 28 July 1998 (1998-07-28) column 6, line 41 -column 7, line 15; figures 6-10 column 9, line 3 - line 36; figure 18 ---	28
A	US 5 766 959 A (DASGUPTA PURNENDU K) 16 June 1998 (1998-06-16) column 4, line 24 - line 51; examples 44,45 column 5, line 11 - line 20 column 5, line 40 - line 42 ---	28,29
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INTERNATIONAL SEARCH REPORT

Intern nal Application No

PCT/US 00/12826

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/12826

B x I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-10,11-17,18,20-23,24-27,31-32,33-35,36,37

method for performing operations in a liquid zone containing a solvent undergoing evaporation, the liquid zone being in a well open to atmosphere extending through a wall of a capillary channel, and devices.

2. Claims: 19,28-30

Method for performing a determination in a device comprising two capillaries with confronting orifices defining a liquid zone exposed to the atmosphere, and the device.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter. Application No

PCT/US 00/12826

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Information on patent family members

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